

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query   | DBs                    | Default Operator | Plurals | Time Stamp       |
|-------|------|--|------------------------|------------------|---------|------------------|
| S1    | 3    | US-5823265-\$ DID. OR US-6328109-\$ DID. OR US-6668935-\$ DID.             | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 10:48 |
| S3    | 1    | "10710753"   | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/17 17:06 |
| S4    | 583  | 166/386.ccls.  | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 10:48 |
| S5    | 133  | 166/386.ccls. flapper  | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 11:44 |
| S6    | 20   | cross ADJ flow ADJ (prevention OR preventing OR prevent)                   | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 11:46 |
| S7    | 53   | cross ADJ flow ADJ (prevention OR preventing OR prevent OR valve)          | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 11:47 |
| S8    | 2    | 166/319.ccls. 166/321.ccls. 166/332.8.ccls.                                | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 12:02 |
| S9    | 1108 | 166/319.ccls. OR 166/321.ccls. OR 166/332.8.ccls.                          | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 12:02 |
| S10   | 529  | 166/319.ccls. OR 166/321.ccls. 166/332.8.ccls.                             | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 12:02 |
| S11   | 4    | 166/321.ccls. 166/386.ccls. 166/313.ccls.                                  | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 12:42 |
| S12   | 1041 | 166/321.ccls. OR 166/386.ccls. OR 166/313.ccls. (formation NEAR isolation) | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 13:11 |
| S13   | 1034 | 166/321.ccls. OR 166/386.ccls. OR 166/313.ccls. crossflow NEAR system      | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 13:12 |
| S14   | 0    | (166/321.ccls. OR 166/386.ccls. OR 166/313.ccls.) crossflow NEAR system    | US-PGPUB; USPAT; USOCR | AND              | OFF     | 2006/07/18 13:12 |

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| S15 | 0   | (166/321.ccls. OR 166/386.ccls. OR 166/313.ccls.) (crossflow NEAR system) | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 13:12 |
| S16 | 22  | (166/321.ccls. OR 166/386.ccls. OR 166/313.ccls.) (crossflow)             | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 13:12 |
| S18 | 739 | 166/191.ccls. OR 166/374.ccls.  | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 13:42 |
| S19 | 654 | 166/191.ccls. OR 166/374.ccls. system                                     | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 13:43 |
| S20 | 552 | 166/191.ccls. OR 166/374.ccls. system formations                          | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 13:43 |
| S21 | 92  | (166/191.ccls. OR 166/374.ccls.) system formations                        | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 14:07 |
| S22 | 107 | (166/191.ccls. OR 166/374.ccls.) (zone OR formation) isolation            | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 14:08 |
| S23 | 352 | hydraulic isolation flapper   | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 14:59 |
| S24 | 245 | hydraulic isolation flapper   | USPAT; USOCR                                       | AND | OFF | 2006/07/18 14:59 |
| S25 | 12  | production ADJ zone isolation crossflow                                   | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | AND | OFF | 2006/07/18 15:34 |
| S26 | 559 | "166".clas. production ADJ zone isolation flow                            | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | AND | OFF | 2006/07/18 15:50 |
| S27 | 689 | 166/319.ccls. OR 166/374.ccls.  | US-PGPUB; USPAT; USOCR                             | AND | OFF | 2006/07/18 17:19 |

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|-----|-----|--|------------------------|-----|-----|------------------|
| S28 | 40  | ("2798561"   "2951536"   "2963089"   "3412806"   "3640341"   "3912008"   "4043392"   "4143712"   "4215746"   "4280561"   "4354554"   "4356867"   "4417600"   "4420045"   "4589482"   "4624310"   "4627492"   "4979569"   "5058673"   "5090481"   "5257663"   "5263683"   "5337827"   "5518073"   "5664629"   "5810087"   "5941308").PN. OR ("6227298").URPN. | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 16:55 |
| S29 | 0   | hydraulic ADJ flapper ADJ valve  | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 17:19 |
| S30 | 4   | hydraulic NEAR (flapper ADJ valve)   | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 17:22 |
| S31 | 140 | 166/332.8.ccls.  | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 17:23 |
| S32 | 53  | 166/332.8.ccls. piston bias  | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 18:18 |
| S33 | 91  | 166/332.8.ccls. hydraulic  | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 18:20 |
| S34 | 68  | 166/332.8.ccls. hydraulic piston   | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 18:20 |
| S35 | 8   | 166/332.8.ccls. hydraulic NEAR piston  | US-PGPUB; USPAT; USOCR | AND | OFF | 2006/07/18 18:20 |
| S36 | 1   | ("20060021757").PN.  | US-PGPUB; USPAT; USOCR | OR  | OFF | 2007/02/14 09:50 |
| S37 | 2   | 166/385,375.ccls. (crossflow OR cross-flow)  | US-PGPUB; USPAT; USOCR | AND | OFF | 2007/02/14 12:04 |
| S38 | 10  | 166/385,375.ccls. (multiple ADJ formation)   | US-PGPUB; USPAT; USOCR | AND | ON  | 2007/02/14 13:43 |
| S39 | 145 | "166".clas. (multiple ADJ formation)   | US-PGPUB; USPAT; USOCR | AND | ON  | 2007/02/14 11:26 |
| S40 | 211 | "166".clas. (crossflow OR cross-flow)  | US-PGPUB; USPAT; USOCR | AND | OFF | 2007/02/14 12:04 |
| S41 | 14  | "166".clas. (crossflow OR cross-flow).clm.   | US-PGPUB; USPAT; USOCR | AND | OFF | 2007/02/14 12:04 |
| S42 | 10  | "166".clas. ((crossflow OR cross-flow) NEAR (prevent OR prevention OR anti))   | US-PGPUB; USPAT; USOCR | AND | ON  | 2007/02/14 13:43 |

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|-----|-----|---|---------------------------|-----|-----|---------------------|
| S43 | 3   | US-5823265-\$.DID. OR<br>US-6328109-\$.DID. OR<br>US-6668935-\$.DID. OR<br>US-5823265-\$.DID. OR<br>US-6328109-\$.DID. OR<br>US-6668935-\$.DID.                                       | US-PGPUB;<br>USPAT; USOCR | AND | OFF | 2007/02/14<br>13:53 |
| S44 | 721 | 166/316,319.ccls.   | US-PGPUB;<br>USPAT; USOCR | AND | OFF | 2007/11/13<br>10:45 |
| S45 | 59  | S44 (formations WITH<br>(flow OR<br>communication))   | US-PGPUB;<br>USPAT; USOCR | AND | OFF | 2007/11/13<br>12:06 |
| S46 | 73  | "166".clas. (((cross ADJ<br>flow) OR crossflow)<br>WITH (formation OR<br>formations))   | US-PGPUB;<br>USPAT; USOCR | AND | OFF | 2007/11/13<br>12:07 |
| S47 | 44  | "166".clas. ((multi ADJ<br>position) OR (multi-<br>position) OR<br>multiposition OR<br>(multiple ADJ position)<br>OR (multiple ADJ<br>position)) ADJ (valve OR<br>(flow ADJ control)) | US-PGPUB;<br>USPAT; USOCR | AND | OFF | 2009/12/03<br>11:32 |
| S48 | 52  | "166".clas. ((multi ADJ<br>position) OR (multi-<br>position) OR<br>multiposition OR<br>(multiple ADJ position)<br>OR (multiple ADJ<br>position)) ADJ (valve OR<br>(flow ADJ control)) | US-PGPUB;<br>USPAT; USOCR | AND | ON  | 2009/12/03<br>11:32 |
| S49 | 9   | ("20020148610"  <br>"20030226665"  <br>"20030079878"  <br>"3282341"   "5337808"  <br>"6227298"   "6302216"  <br>"6318469").PN.  | US-PGPUB;<br>USPAT; USOCR | AND | ON  | 2009/12/03<br>11:44 |

**EAST Search History (Interference)**

| Ref # | Hits | Search Query  | DBs            | Default Operator | Plurals | Time Stamp       |
|-------|------|---|----------------|------------------|---------|------------------|
| L1    | 1    | (multi-position cross-<br>flow).clm.                  | USPAT;<br>UPAD | AND              | OFF     | 2009/12/08 12:14 |
| L2    | 0    | (multi-position cross-<br>flow prevention).clm.       | USPAT;<br>UPAD | AND              | OFF     | 2009/12/08 12:15 |
| L3    | 1    | (multi-position cross-<br>flow first second).<br>clm. | USPAT;<br>UPAD | AND              | OFF     | 2009/12/08 12:15 |

**12/ 8/ 2009 12:15:40 PM**

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crossflow preventer.wsp**